

WHAT IS CLAIMED IS:

1. A system for monitoring operational characteristics of a vehicle, the system comprising:
a computer in the vehicle; and
5 a wireless appliance in electrical contact with the computer, the wireless appliance comprising a data-transmission component configured to transmit data associated with the operational characteristics over a network to a host computer system, and to receive over the network data from the host computer system.
- 10 2. The system of claim 1, wherein the wireless appliance further comprises a data-collection component supporting communication software that collects data associated with the operational characteristics.
3. The system of claim 2, wherein the communication software supported by the
15 data-collection component comprises a schema component that identifies the diagnostic data to be collected from the vehicle's computer.
4. The system of claim 1, wherein the host computer system is configured to transmit
the schema component in an incoming data packet.
- 20 5. The system of claim 3, wherein the schema component comprises an address that describes a location of a diagnostic datum in the vehicle's computer memory.

6. The system of claim 3, wherein the schema component comprises a field that describes a time or frequency that the data-collection component collects data from the vehicle's computer.

5 7. The system of claim 3, wherein the schema component comprises a field that describes a time or frequency that the data-transmission component transmits an outgoing data packet.

10 8. The system of claim 3, wherein the schema component is an ASCII or binary data file.

 9. The system of claim 8, wherein the data file is configured to be processed by the communication software.

15 10. The system of claim 1, wherein the host computer system comprises at least one web-hosting computer that hosts a web site, and at least one, separate gateway computer that receives the outgoing data packet and sends the incoming data packet.

20 11. The system of claim 10, wherein the web site comprises a first web page that displays a vehicle diagnostic datum.

12. The system of claim 11, wherein the first web page comprises data fields describing: i) a name of the diagnostic datum; ii) units corresponding to the diagnostic datum; and iii) a numerical value corresponding to the diagnostic datum.

5 13. The system of claim 12, wherein the first web page further comprises multiple sets of diagnostic data, with each set being received by the host computer system at a unique time and date.

10 14. The system of claim 13, wherein the first web page further comprises a graphical representation of a set of diagnostic data received by the host computer system at a unique time and date.

15 15. The system of claim 13, wherein the diagnostic data includes at least one of the following: diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

20 16. The system of claim 11, wherein the web site further comprises a database component.

17. The system of claim 16, wherein the web site further comprises a login web page where a user enters a user name and password.

5 18. The system of claim 17, wherein the database component comprised by the login web page is configured to verify if the user is associated with multiple vehicles.

10 19. The system of claim 18, wherein the user is associated with multiple vehicles, and the web site comprises a second web page that displays vehicle diagnostic data corresponding to each vehicle.

20. The system of claim 4, wherein the host computer is capable of hosting a web site on the Internet that displays the operational characteristics, wherein the web site comprises a third web page that comprises a mechanism for sending the incoming data packet over the network.

15 21. The system of claim 20, wherein the web page comprises a list of parameters that can be extracted from the vehicle's computer.

20 22. The system of claim 10, wherein the gateway computer that receives the outgoing data packet and sends the incoming data packet is connected to the network.

23. The system of claim 22, wherein the gateway computer is connected to a digital communication line that is connected to the network.

24. The system of claim 1, further comprising a secondary computer system that connects to the host computer system through the Internet and is configured to display the web site.

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25. The system of claim 1, further comprising a hand-held device that connects to the host computer system through the Internet and is configured to display the web site.

26. The system of claim 25, wherein the hand-held device is a cellular telephone or a personal digital assistant.

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27. The system of claim 1, wherein the host computer system is further configured to send an electronic mail message that comprises all or part of the vehicle diagnostic data.

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28. The system of claim 1, wherein the wireless appliance is configured to send an outgoing data packet that indicates a location of a transmitting base station.

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29. The system of claim 28, wherein the host computer system comprises software that analyzes the location of the transmitting base station to determine an approximate location of the vehicle.

30. The system of claim 29, wherein the web site comprises a web page that displays the approximate location of the vehicle.

31. A device for monitoring operational characteristics of a vehicle, the device comprising:

- a host computer system;
- 5 a wireless appliance including a data transmission component configured to communicate data associated with the operational characteristics over a network to the host computer system; and
- a website hosted on the host computer system that can display the operational characteristics.

10 32. A device for monitoring operational characteristics of a vehicle, the device comprising:

- a wireless appliance including a data-transmission component configured to receive data associated with the operational characteristics over a network from a host computer.

15 33. A system for monitoring operational characteristics of a vehicle, the system comprising:

- a host computer that supports a web site that can display the operational characteristics; and
- 20 a wireless appliance including a data transmission component configured to communicate data associated with the operational characteristics over a network to the host computer.

25 34. The system of claim 33, wherein the wireless appliance is in the vehicle.

35. The system of claim 34, wherein the host computer is external to the vehicle.

36. A system for monitoring operational characteristics of a vehicle, the system comprising:

a host computer; and

5 a wireless appliance including a data transmission component configured to receive data associated with the operational characteristics over a network from the host computer.

37. The system of claim 36, wherein the wireless appliance is in the vehicle.

10 38. The system of claim 37, wherein the host computer is external to the vehicle.